repeated. All valve operations are governed by an automatic control unit 5.--.

Page 6, replace the paragraph beginning on line 4 as follows:

--By an appropriate choice of the temperatures T_1 and T_2, and by an appropriate choice of the acid concentration, it is possible, if desired, to complete the process in a single depressurization period since high temperature and high acidity permit a short reaction time.--;

Page 6, replace the paragraph beginning on line 8 as follows:

--Needless to say, designing such an operation is complicated as the furfural reaction takes place over a wide range of temperatures (e.g. from 230°C to 160°C), but once calculated, the practical realization of the process is extremely simple.--.

IN THE CLAIMS:

Cancel claims 1-10.

Add the following new claims:

--14. (new) A process for manufacturing furfural which comprises the steps of:

charging a reactor with pentosan containing material;

heating the charge to a first predetermined temperature by introducing pressurized steam via a steam inlet valve;

closing the steam inlet valve; and

subjecting the charge to a gradual depressurization by reducing the pressure in the reactor until a second predetermined temperature is attained; the depressurization being at a rate sufficient to maintain the liquid phase within the reactor in a constantly ebullient state.

--15. (new) The process according to claim 14, further comprising the step of acidifying the charge prior to heating.

--16. (new) The process according to claim 14, wherein the rate of depressurization is sufficient to complete conversion to furfural before the second predetermined temperature is reached.

--17. (new) The process according to claim 14, wherein the complete conversion to furfural is obtained in more than one depressurization from the first predetermined temperature to the second predetermined temperature by the addition of steam.

--18. (new) The process according to claim 14, wherein steam is added during the depressurization, for a predetermined period.

--19. (new) The process according to claim 14, wherein the gradual depressurization comprises a controlled leaking of a stream of vapor from the reactor until the second predetermined temperature is attained.